WHAT IS CLAIMED IS:

1. A driving control apparatus for a vehicle, comprising

an engine which generates power by fuel combustion;

a transmission which achieves plural speeds, gear ratios of which are different from each other, by changing engagement/disengagement states of plural frictional engagement devices including a high speed side frictional engagement device and a low speed side frictional engagement device;

a fuel cut control device which performs fuel cut in which fuel supply to the engine is stopped when a predetermined fuel cut condition including a condition that the vehicle is coasting is satisfied;

a transmission control device which performs control for disengaging the high speed side frictional engagement device and applying an amount of torque to the low speed side frictional engagement device such that an engine speed is increased when downshifting of the transmission is automatically performed at a coasting time; and

a low speed side torque control device which stops the control of torque of the low speed side frictional engagement device by the transmission control device so as to reduce the amount of torque of the low speed side frictional engagement device when the fuel cut by the fuel cut control device is cancelled and the fuel supply is restarted in a case where a signal for downshifting of the transmission is output while fuel supply is stopped by the fuel cut control device at the coasting time, and then the engine speed is being increased due to the control of torque of the low speed side frictional engagement device by the transmission control device.

2. The driving control apparatus according to claim 1, wherein the amount of torque is applied to the low speed side frictional engagement device by supplying a hydraulic pressure to a hydraulic actuator, and the low speed side torque control device reduces the hydraulic pressure to a hydraulic pressure value immediately before the amount of torque is applied to the low speed side frictional engagement device.

3. The driving control apparatus according to claim 2, wherein the low speed side torque control device reduces the hydraulic pressure of the low speed side frictional engagement device, and then causes the low speed side frictional engagement device to be completely engaged promptly when a rotational speed of an

input shaft of the transmission becomes equal to or higher than a first predetermined value.

4. The driving control apparatus according to claim 1, wherein the amount of torque is applied to the low speed side frictional engagement device by supplying a hydraulic pressure to a hydraulic actuator, and the low speed side torque control device reduces the hydraulic pressure until the amount of torque of the low speed side frictional engagement device becomes equal to a predetermined amount of torque.

5. The driving control apparatus according to claim 4, wherein the low speed side torque control device reduces the hydraulic pressure of the low speed side frictional engagement device, and then causes the low speed side frictional engagement device to be completely engaged promptly when a rotational speed of an input shaft of the transmission becomes equal to or higher than a first predetermined value.

6. The driving control apparatus according to claim 1, wherein the low speed side torque control device causes the low speed side frictional engagement device to be completely engaged promptly when a rotational speed of an input shaft of the transmission becomes equal to or higher than a second predetermined value in a case where the fuel supply is not restarted.

7. A driving control method for a vehicle, comprising:

determining whether fuel cut is being performed;

determining whether a signal for downshifting has been output when the vehicle is coasting;

performing coasting time downshift control for disengaging a high speed side engagement device of a transmission and applying an amount of torque to a low speed side engagement device such that an engine speed is increased, when the signal for downshifting has been output;

determining whether the fuel cut has been cancelled in a case where the engine speed is being increased by the coasting time downshift control based on the signal for downshifting which is output when the fuel cut is being performed and the vehicle is coasting; and

reducing the amount of torque of the low speed side frictional engagement device when it is determined that the fuel cut has been cancelled.

8. The driving control method according to claim 7, wherein hydraulic pressure of the low speed side frictional engagement device is reduced to a hydraulic pressure value immediately before the amount of torque is applied to the low speed side frictional engagement device when the fuel cut is cancelled in the case where the engine speed is being increased.

9. The driving control method according to claim 8, further comprising:

causing the low speed side frictional engagement device to be completely engaged promptly when a rotational speed of an input shaft of the transmission is equal to or higher than a first predetermined value after the hydraulic pressure of the low speed side frictional engagement device is reduced.

10. The driving control method according to claim 7, wherein the hydraulic pressure of the low speed side frictional engagement device is reduced until the amount of torque of the low speed side frictional engagement device becomes equal to a predetermined amount of torque when the fuel cut is cancelled in the case where the engine speed is being increased.

11. The driving control method according to claim 10, further comprising:

causing the low speed side frictional engagement device to be completely engaged promptly when a rotational speed of an input shaft of the transmission is equal to or higher than a first predetermined value after the hydraulic pressure of the low speed side frictional engagement device is reduced.

12. The driving method according to claim 7, further comprising:

causing the low speed side frictional engagement device to be completely engaged promptly when a rotational speed of an input shaft of the transmission becomes equal to or higher than a second predetermined value in a case where the fuel supply is not restarted.